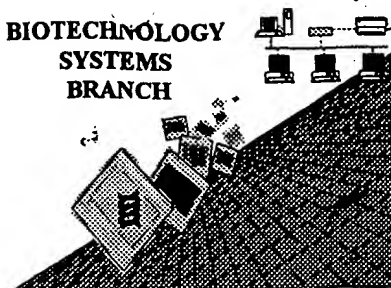


RAW SEQUENCE LISTING **ERROR REPORT**

BIOTECHNOLOGY
SYSTEMS
BRANCH



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/812,485

Source: OIPE

Date Processed by STIC: 4/5/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>

Raw Sequence Listing Error Summary

ERROR DETECTED SUGGESTED CORRECTION

SERIAL NUMBER: 09/812,485

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics The number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".
- 2 Wrapped Aminos The amino acid number/text at the end of each line "wrapped " down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".
- 3 Incorrect Line Length The rules require that a line not exceed 72 characters in length. This includes spaces.
- 4 Misaligned Amino Acid The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs
Numbering between the numbering. It is recommended to delete any tabs and use spacing between the numbers.
- 5 Non-ASCII This file was not saved in ASCII (DOS) text, as required by the Sequence Rules.
Please ensure your subsequent submission is saved in ASCII text so that it can be processed.
- 6 Variable Length Sequence(s) contain n's or Xaa's which represented more than one residue.
As per the rules, each n or Xaa can only represent a single residue.
Please present the maximum number of each residue having variable length and
indicate in the (ix) feature section that some may be missing.
- 7 PatentIn ver. 2.0 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid
sequence(s) . Normally, PatentIn would automatically generate this section from the
previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section
to the subsequent amino acid sequence. This applies primarily to the mandatory <220>-<223>
sections for Artificial or Unknown sequences.
- 8 Skipped Sequences Sequence(s) missing. If intentional, please use the following format for each skipped sequence:
(OLD RULES) (2) INFORMATION FOR SEQ ID NO:X:
(i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS")
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X:
This sequence is intentionally skipped

Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).
- 9 Skipped Sequences Sequence(s) missing. If intentional, please use the following format for each skipped sequence.
(NEW RULES) <210> sequence id number
<400> sequence id number
000
- 10 Use of n's or Xaa's Use of n's and/or Xaa's have been detected in the Sequence Listing.
(NEW RULES) Use of <220> to <223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 11 Use of "Artificial" Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules.
(NEW RULES) Valid response is Artificial Sequence.
- 12 Use of <220>Feature Sequence(s) are missing the <220>Feature and associated headings.
(NEW RULES) Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial Sequence" or "Unknown"
 → Please explain source of genetic material in <220> to <223> section.
 (See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules)
- 13 PatentIn ver. 2.0 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted
file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing).
Instead, please use "File Manager" or any other means to copy file to floppy disk.

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/812,485

DATE: 04/05/2001
TIME: 12:12:58

Input Set : A:\seqlist.txt
Output Set: N:\CRF3\04052001\I812485.raw

Does Not Comply
Corrected Diskette Needed

pp 1-5

4 <110> APPLICANT: Kumagai, Yoshinari
5 Blacher, Russel
6 Yoneda, Toshiyuki
8 <120> TITLE OF INVENTION: "Integrin Binding Motif Containing
9 Peptides and Methods of Treating Skeletal Diseases"
12 <130> FILE REFERENCE: BEAR-006CIP
14 <140> CURRENT APPLICATION NUMBER: US/09/812,485
15 <141> CURRENT FILING DATE: 2001-03-19
17 <150> PRIOR APPLICATION NUMBER: 09/641,034
18 <151> PRIOR FILING DATE: 2000-08-16
20 <160> NUMBER OF SEQ ID NOS: 50
22 <170> SOFTWARE: FastSEQ for Windows Version 4.0
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 97
26 <212> TYPE: PRT
27 <213> ORGANISM: peptide
29 <400> SEQUENCE: 1
30 Asp Ser Gln Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg
31 1 5 10 15
32 Ile Gln His Asn Ile Asp Tyr Leu Lys His Leu Ser Lys Val Lys Lys
33 20 25 30
34 Ile Pro Ser Asp Phe Glu Gly Ser Gly Tyr Thr Asp Leu Gln Glu Arg
35 35 40 45
36 Gly Asp Asn Asp Ile Ser Pro Phe Ser Gly Asp Gly Gln Pro Phe Lys
37 50 55 60
38 Asp Ile Pro Gly Lys Gly Glu Ala Thr Gly Pro Asp Leu Glu Gly Lys
39 65 70 75 80
40 Asp Ile Gln Thr Gly Phe Ala Gly Pro Ser Glu Ala Glu Ser Thr His
41 85 90 95
42 Leu
45 <210> SEQ ID NO: 2
46 <211> LENGTH: 47
47 <212> TYPE: PRT
48 <213> ORGANISM: peptide
50 <400> SEQUENCE: 2
51 Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg Ile Gln His
52 1 5 10 15
53 Asn Ile Asp Tyr Leu Lys His Leu Ser Lys Val Lys Lys Ile Pro Ser
54 20 25 30
55 Asp Phe Glu Gly Ser Gly Tyr Thr Asp Leu Gln Glu Arg Gly Asp
56 35 40 45
58 <210> SEQ ID NO: 3
59 <211> LENGTH: 47
60 <212> TYPE: PRT
61 <213> ORGANISM: peptide
63 <400> SEQUENCE: 3
64 Arg Gly Asp Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg

(global error)

invalid - per 1.823 of sequence rules, the only valid
<213> responses are: Unknown,

Artificial Sequence,
or Scientific name
(Genus/species)

(see circled portion
of item 12 on Error
Summary Sheet)

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/812,485

DATE: 04/05/2001

TIME: 12:12:58

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04052001\I812485.raw

```
65 1 5 10 15
66 Ile Gln His Asn Ile Asp Tyr Leu Lys His Leu Ser Lys Val Lys Lys
67 20 25 30
68 Ile Pro Ser Asp Phe Glu Gly Ser Gly Tyr Thr Asp Leu Gln Glu
69 35 40 45
71 <210> SEQ ID NO: 4
72 <211> LENGTH: 47
73 <212> TYPE: PRT
74 <213> ORGANISM: peptide
76 <400> SEQUENCE: 4
77 Asp Ser Gln Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg
78 1 5 10 15
79 Ile Gln His Asn Ile Asp Tyr Leu Lys His Leu Ser Lys Val Lys Lys
80 20 25 30
81 Ile Pro Ser Asp Phe Glu Gly Ser Gly Tyr Thr Asp Arg Gly Asp
82 35 40 45
84 <210> SEQ ID NO: 5
85 <211> LENGTH: 44
86 <212> TYPE: PRT
87 <213> ORGANISM: peptide
89 <400> SEQUENCE: 5
90 Arg Gly Asp Ser Pro Val Lys Ser Lys Ser Thr His Arg Ile Gln His
91 1 5 10 15
92 Asn Ile Asp Tyr Leu Lys His Leu Ser Lys Val Lys Lys Ile Pro Ser
93 20 25 30
94 Asp Phe Glu Gly Ser Gly Tyr Thr Asp Leu Gln Glu
95 35 40
97 <210> SEQ ID NO: 6
98 <211> LENGTH: 44
99 <212> TYPE: PRT
100 <213> ORGANISM: peptide
102 <400> SEQUENCE: 6
103 Asp Ser Gln Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg
104 1 5 10 15
105 Ile Gln His Asn Ile Asp Tyr Leu Lys His Leu Ser Lys Val Lys Lys
106 20 25 30
107 Ile Pro Ser Asp Phe Glu Gly Ser Gly Arg Gly Asp
108 35 40
110 <210> SEQ ID NO: 7
111 <211> LENGTH: 37
112 <212> TYPE: PRT
113 <213> ORGANISM: peptide
115 <400> SEQUENCE: 7
116 Arg Gly Asp Thr His Arg Ile Gln His Asn Ile Asp Tyr Leu Lys His
117 1 5 10 15
118 Leu Ser Lys Val Lys Lys Ile Pro Ser Asp Phe Glu Gly Ser Gly Tyr
119 20 25 30
120 Thr Asp Leu Gln Glu
121 35
```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/812,485

DATE: 04/05/2001

TIME: 12:12:58

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04052001\I812485.raw

123 <210> SEQ ID NO: 8
124 <211> LENGTH: 41
125 <212> TYPE: PRT
126 <213> ORGANISM: peptide
128 <400> SEQUENCE: 8
129 Asp Ser Gln Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg
130 1 5 10 15
131 Ile Gln His Asn Ile Asp Tyr Leu Lys His Leu Ser Lys Val Lys Lys
132 20 25 30
133 Ile Pro Ser Asp Phe Glu Arg Gly Asp
134 35 40
136 <210> SEQ ID NO: 9
137 <211> LENGTH: 27
138 <212> TYPE: PRT
139 <213> ORGANISM: peptide
141 <400> SEQUENCE: 9
142 Arg Gly Asp Leu Lys His Leu Ser Lys Val Lys Lys Ile Pro Ser Asp
143 1 5 10 15
144 Phe Glu Gly Ser Gly Tyr Thr Asp Leu Gln Glu
145 20 25
147 <210> SEQ ID NO: 10
148 <211> LENGTH: 38
149 <212> TYPE: PRT
150 <213> ORGANISM: peptide
152 <400> SEQUENCE: 10
153 Asp Ser Gln Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg
154 1 5 10 15
155 Ile Gln His Asn Ile Asp Tyr Leu Lys His Leu Ser Lys Val Lys Lys
156 20 25 30
157 Ile Pro Ser Arg Gly Asp
158 35
160 <210> SEQ ID NO: 11
161 <211> LENGTH: 24
162 <212> TYPE: PRT
163 <213> ORGANISM: peptide
165 <400> SEQUENCE: 11
166 Arg Gly Asp Leu Ser Lys Val Lys Lys Ile Pro Ser Asp Phe Glu Gly
167 1 5 10 15
168 Ser Gly Tyr Thr Asp Leu Gln Glu
169 20
171 <210> SEQ ID NO: 12
172 <211> LENGTH: 32
173 <212> TYPE: PRT
174 <213> ORGANISM: peptide
176 <400> SEQUENCE: 12
177 Asp Ser Gln Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg
178 1 5 10 15
179 Ile Gln His Asn Ile Asp Tyr Leu Lys His Leu Ser Lys Arg Gly Asp
180 20 25 30

RAW SEQUENCE LISTING

DATE: 04/05/2001

PATENT APPLICATION: US/09/812,485

TIME: 12:12:58

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04052001\I812485.raw

182 <210> SEQ ID NO: 13
183 <211> LENGTH: 21
184 <212> TYPE: PRT
185 <213> ORGANISM: peptide
187 <400> SEQUENCE: 13
188 Arg Gly Asp Val Lys Lys Ile Pro Ser Asp Phe Glu Gly Ser Gly Tyr
189 1 5 10 15
190 Thr Asp Leu Gln Glu
191 20
193 <210> SEQ ID NO: 14
194 <211> LENGTH: 28
195 <212> TYPE: PRT
196 <213> ORGANISM: peptide
198 <400> SEQUENCE: 14
199 Asp Ser Gln Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg
200 1 5 10 15
201 Ile Gln His Asn Ile Asp Tyr Leu Lys Arg Gly Asp
202 20 25
204 <210> SEQ ID NO: 15
205 <211> LENGTH: 18
206 <212> TYPE: PRT
207 <213> ORGANISM: peptide
209 <400> SEQUENCE: 15
210 Arg Gly Asp Ile Pro Ser Asp Phe Glu Gly Ser Gly Tyr Thr Asp Leu
211 1 5 10 15
212 Gln Glu
215 <210> SEQ ID NO: 16
216 <211> LENGTH: 25
217 <212> TYPE: PRT
218 <213> ORGANISM: peptide
220 <400> SEQUENCE: 16
221 Asp Ser Gln Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg
222 1 5 10 15
223 Ile Gln His Asn Ile Asp Arg Gly Asp
224 20 25
226 <210> SEQ ID NO: 17
227 <211> LENGTH: 15
228 <212> TYPE: PRT
229 <213> ORGANISM: peptide
231 <400> SEQUENCE: 17
232 Arg Gly Asp Asp Phe Glu Gly Ser Gly Tyr Thr Asp Leu Gln Glu
233 1 5 10 15
235 <210> SEQ ID NO: 18
236 <211> LENGTH: 19
237 <212> TYPE: PRT
238 <213> ORGANISM: peptide
240 <400> SEQUENCE: 18
241 Asp Ser Gln Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg
242 1 5 10 15

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/812,485

DATE: 04/05/2001
TIME: 12:12:58

Input Set : A:\seqlist.txt
Output Set: N:\CRF3\04052001\I812485.raw

243 Arg Gly Asp
246 <210> SEQ ID NO: 19
247 <211> LENGTH: 12
248 <212> TYPE: PRT
249 <213> ORGANISM: peptide
251 <400> SEQUENCE: 19
252 Arg Gly Asp Gly Ser Gly Tyr Thr Asp Leu Gln Glu
253 1 5 10
255 <210> SEQ ID NO: 20
256 <211> LENGTH: 13
257 <212> TYPE: PRT
258 <213> ORGANISM: peptide
260 <400> SEQUENCE: 20
261 Asp Ser Gln Ala Gln Lys Ser Pro Val Lys Arg Gly Asp
262 1 5 10
264 <210> SEQ ID NO: 21
265 <211> LENGTH: 9
266 <212> TYPE: PRT
267 <213> ORGANISM: peptide
269 <400> SEQUENCE: 21
270 Arg Gly Asp Gly Tyr Thr Asp Leu Gln
271 1 5
273 <210> SEQ ID NO: 22
274 <211> LENGTH: 10
275 <212> TYPE: PRT
276 <213> ORGANISM: peptide
278 <400> SEQUENCE: 22
279 Asp Ser Gln Ala Gln Lys Ser Arg Gly Asp
280 1 5 10
282 <210> SEQ ID NO: 23
283 <211> LENGTH: 40
284 <212> TYPE: PRT
285 <213> ORGANISM: peptide
287 <400> SEQUENCE: 23
288 Arg Gly Asp Asn Asp Ile Ser Pro Phe Ser Gly Asp Gly Gln Pro Phe
289 1 5 10 15
290 Lys Asp Ile Pro Gly Lys Gly Glu Ala Thr Gly Pro Asp Leu Glu Gly
291 20 25 30
292 Lys Asp Ile Gln Thr Gly Phe Ala
293 35 40
295 <210> SEQ ID NO: 24
296 <211> LENGTH: 40
297 <212> TYPE: PRT
298 <213> ORGANISM: peptide
300 <400> SEQUENCE: 24
301 Asn Asp Ile Arg Gly Asp Ser Pro Phe Ser Gly Asp Gly Gln Pro Phe
302 1 5 10 15
303 Lys Asp Ile Pro Gly Lys Gly Glu Ala Thr Gly Pro Asp Leu Glu Gly
304 20 25 30

Please correct this error in subsequent sequences
Low

PSI

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is present in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/812,485

DATE: 04/05/2001

TIME: 12:12:59

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04052001\I812485.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application Number

L:521 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43

L:591 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50